



Kansas DOT

Linux Equipment Contract

2010 - 2011

Qty.	Item Description	Part #	List Unit Price	KDOT Contract Unit Price
WEATHER STATION ELECTRONICS				
1	RWIS elite Remote Processing Unit (110VAC) Includes full size card rack, interface cards, system boards, RPU back plate and NEMA4 aluminum RPU enclosure. (2 serial ports are standard)	70130200	6,207.08	5,276.02
1	RWIS elite Remote Processing Unit (12VDC) Includes full size card rack, interface cards, system boards, RPU back plate and NEMA4 aluminum RPU enclosure. (2 serial ports are standard)	70130213	6,207.08	5,276.02
1	RWIS elite Upgrade for Standard Size Enclosure, 30x24x' Includes full size card rack, interface cards, system boards and RPU back plate. For installation in existing RPU enclosure. (2 serial ports are standard)	70030200	5,574.24	4,738.10
1	RWIS elite Upgrade for Standard Size Enclosure, 30x24x' Includes full size card rack, interface cards, system boards, RPU back plate, NEMA 4 aluminum RPU enclosure and APA board. For installation in existing RPU enclosure. (2 serial ports are standard)	70030213	5,574.24	4,738.10
1	RWIS elite NEMA4 stainless steel RPU Enclosure Enclosure Size 30x24x12	15020014QT	1,908.90	1,622.57
1	elite Serial Port Expansion Kit - Adds 2 Serial Ports A serial port expansion kit is required if RWIS elite will have more than 2 serial ports	70120050	191.84	163.06
1	RWIS elite 2 Surface Sensor Expansion Kit - Adds 2 Sensors RWIS elite hardware & software to support addition of 2 surface sensors	70120043	606.38	515.42
1	RWIS elite 4 Surface Sensor Expansion Kit - Adds 4 Sensors RWIS elite hardware & software to support addition of 4 surface sensors	70120044	996.78	847.26
1	RWIS elite Software License	80301100	1,366.00	1,161.10
1	RPU Strip Heater with Thermostat	56023126	218.30	185.56
1	RPU Relay Control Board	70216122	546.84	464.81

Relay card with software license, includes digital and analog outputs, works with RWIS elite and ESP RPUs.

1	Remote Relay Kit Wireless ethernet radio package that resides at remote device such as sign, flashing beacon, etc. Package contains radio, antenna, cables, enclosure. Either Master Remote Panel Control Kit or Standalone Master Control Kit resided at the RPU location.	72681000	8,095.00	6,880.75
1	Master Remote Panel Control Kit Wireless ethernet radio package that resides at at the RPU. Kit includes radio, antenna, cables, no enclosure. Used in conjunction with Remote Relay Kit.	72681250	7,711.99	6,555.19
1	Standalone Master Control Kit Wireless ethernet radio package that resides at at the RPU. Kit includes radio, antenna, cables, enclosure. Used in conjunction with Remote Relay Kit.	72681200	9,168.42	7,793.16
1	Remote Flasher Package- Slave Site NOTE: If remote site is 110VAC then an Astron power supply will be need 28010001	72681100	8,268.75	7,028.44
1	RPU Traffic Cabinet, Unpainted Aluminum 34 3/4"X 24 1/4", aluminum	15020019QT	3,068.60	2,608.31
1	RPU Traffic Cabinet, Powder Coated Aluminum 34 3/4"X 24 1/4", aluminum and powder coated to agency specifications.	15020020QT	3,380.00	2,873.00
1	Ruggedized DCB D56 RPU Modem Kit Data Com 56k RPU modem 9 to 25 pin cable	59030254 52010254 50600056	484.00	411.40
1	Ruggedized 14.4 Kbaud RPU Modem Includes 9 to 25 pin cable, compatible with 110VAC or 12 VDC	59030390	711.08	604.42
1	Ruggedized 28.8 Kbaud RPU Modem Includes 9 to 25 pin cable, compatible with 110VAC or 12 VDC	52010392	845.81	718.94
1	Industrial Ethernet Real-Time 5-Port Switch Used to hook multiple Ethernet devices to the LX-RPU platforms	51018117	429.98	365.48
1	RPU Solar Power Supply - Custom Configuration U.L. listed PV panel array, mounting poles & bracket kit, sealed maintenance free batteries, NEMA 3R battery enclosure, voltage regulator and wiring harness.	Custom Quote Only	Custom	
1	DC UPS with Inverter- Custom Battery back-up	Custom Quote Only	Custom	
1	DC UPS without Inverter- Custom Battery back-up	Custom Quote Only	Custom	
1	Roadway Fold-Over 30' Tower Kit - MF1330 24" Cross member mounting bracket Tower top section Tower fold-over assembly Tower bottom section Tower middle section Fixed base assembly for concrete foundation 2 center tower mounts	ICE30TOWER	3,332.77	2,832.85
1	Anti-climb panels	ICETOWERPANELS		

1	Atmospheric mounting pole	60030002	11.94	10.15
1	S-Cross members to mount RPU enclosure	60030004	82.67	70.27
1	Padlock	25010001	14.22	12.09
1	Tower grounding kit, RPU	24051114	285.45	242.63
1	Roadway Tower Relocation Kit	24051012	566.33	481.38
1	Fixed base assembly for concrete foundation	60010004		
1	Tower grounding kit	24051114	385.47	327.65
1	Tower Hinged Base Assembly	60010005	480.07	408.06
1	Footing Assembly w/Anchor bolts	60010006	252.00	214.20
	for KM3030 tower			
1	MF-1333 Tower Base	60001333	514.25	437.11
1	Dual obstruction warning light - Incandescent	49600002	333.15	283.18

ATMOSPHERIC & ENVIRONMENTAL SENSING DEVICES

1	Relative Humidity/Air Temperature Sensor	57050113	1273	1,082.07
	Includes shield & 50' cable, can be extended to 150' with additional cable -Only compatible w/ Linux -			
	Air Temp / Humidity Sensor			
1	Air Temp / Humidity Sensor, RoSA w/o Cable	HMP155D-2AB11A0A0A1A0A	964	819.40
1		HMP155D-2AB11A0A1A1A0A	1273	1,082.05
1	HMP155 w/ Connection Cable 10m 8-pin M12	HMP155D-2AB11A0A2A1A0A	1044	887.40
1		HMP155D-2AB11A0A3A1A0A	1092	928.20
1	Radiation Shield	DTR503	867	736.94
1	Mechanical Wind Speed/Direction Sensor	59020001	865	734.92
	Includes 50' cable, can be extended up to 2,500' with additional cable.			
1	Wind Sensor Kit	WM30B2CB	1430	1,215.50
	Wind Sensor			
	Mounting Accessories Kit for WMS301 and 50mm-110mm Mast			
	Cable, 10 m	WMS301• WMS30KIT• 19904		
1	Ultrasonic Wind Sensor, NO HEATER	59020017	1850	1,572.50
	Includes 75' cable			
1	Ultrasonic Wind Sensor with Heater	72657901	3484	2,961.03
1	Tipping Bucket Rain Gauge TE525	58020019	517	439.51
	Includes 50' cable, can be extended to 150' with additional cable			
1	Tipping Bucket Mounting Hardware	24051050	93	78.77
1	Hawk Eye Optical Infrared Y/N Precipitation Sensor	72657103	2150	1,827.40
1	Hawk Eye precipitation tower mounting kit	24051024	53	45.30
	Includes 50' cable, can be extended up to 150' with additional cable			
1	Rain Detector (RAIN ON/OFF)	DRD11A	2150	1,827.50
	Precipitation / Visibility Sensors			
1		PWD10-ANNNN1NANNNNAN	5486	4,662.79
1	Precipitation / Visibility Sensor, 10-2000m	PWD12-CNNNN1NANNNNBN	7481	6,358.54

1		PWD12-DNNNN1NANNNNCN	10672	9,071.20
1		PWD22-DNHNN1NANNNNCN	14224	12,090.40
1	Precipitation / Visibility Sensor W/ Hood Heaters, 10-20,000m	PWD22-DNHNN1NANNNNCN	14528	12,348.80
		PWD31-PNNNN1NANNNNMN	4919	
1	Precipitation / Identifier Sensor W/ Hood Heaters PWD31	PWD31-PNHNN1NANNNNMN	7472	6,351.20
1		217150	262	222.36
1	PWD Connection Cable 8m (16 wires)	217147	331	281.66
		217148	453	
1	PWD Connection Cable 35m (16 wires)	217149	715	607.78
1	Sentry SVS1 Forward Scatter Visibility Sensor RPU interface cables - (visibility range - 30M 16KM range)	57010600	5817	4,944.27
1	Sensor tower support arm	60030008	219	185.86
1	Sentry SVS1 Forward Scatter Visibility Sensor RPU interface cables - (visibility range - 10M 10KM range)	57010602	5817	4,944.27
1	Sensor tower support arm	60030008	219	185.86
1	Ultrasonic Snow Depth Sensor	72421401	1998	1,698.19
1	Tower mounting bracket for snow depth sensor (analog comm)	24051060	163	138.69
1	Solar Radiation Kit	72657441	1257	1,068.17
	Sensor to voltage amplifier w/BNC Cable: 3ft., 3 conductor, 22AWG Cable gland, 630 I.D. , 3/4 NPT 441 AN solar radiation sensor with 50' cable Mounting bracket tube with hardware			
1	Barometric Pressure Sensor	76702093	567	481.76
1	Pressure Sensor	PTB1101B1AA	1050	892.50
	BAROCAP [®] silicon capacitive absolute pressure sensor Range: 500-1100 hPa Total accuracy (-20 ... +45 °C): ±1.00 hPa			
1	PTZ Color Camera Model II (Ethernet)	56218580	6195	5,265.75
1	Streaming Video Communication Kit Includes Raven-X CDMA modem/router, ethernet switch, cables, antenna, antenna mount bracket polyphaser, and DC wall plug in power source	59030315	3990	3,391.50
	*To ensure product feasibility, customer/VAISALA, should perform a wireless signal strength site survey			
	**P/N 59030315 (Streaming Video Comm Kit), ONLY works with PTZ Color Camera Model II P/N56218580 NOT included			
1	Fixed Color Camera (Ethernet) Includes Nitrogen pressurized/heated enclosure, mounting bracket for tower, and RPU interconnection cables.	56218565	3073	2,611.77

1	Fixed Color Camera (Ethernet) - Low Powered Includes camera and enclosure for solar power camera applications with lens heater	56218575	3119	2,651.12
1	IR Illuminator (50m) Pole Mounting Kit Includes: Infrared illuminator, LED, aluminum mounting and cable	56218850	2150	1,827.40
1	IR Illuminator (100m) Pole Mounting Kit Includes: Infrared illuminator, LED, aluminum mounting and cable	56218855	2426	2,061.68
1	Sensor Mount Kit, Lattice Tower	228699	210	178.50
	Sensor Support Arm 46"• Mounting Assembl	212564 • XARMOUNT		
1	Sensor Mounting Hardware Kit - Pole	DRUNIVARM 212564 DRUNIV 212489	810	688.29
1	Sensor Mounting Hardware Components			
1	Sensor Support Arm 46"	212564	210	178.50
1		XARMOUNT	104	88.32
1	Mounting Assembly, Pole Mount	DRUNIV	597	507.32
1	Fixing Plate	212489	24	20.38
1	Recommended Floor Stock			
1	Band It Bracket	221503	15	12.75
1	Band It Bracket lock	221504	194	164.62

PAVEMENT SENSORS

1	Remote Surface State Sensor	DSC111	16,320.00	13,872.00
1	Remote Surface Temperature Sensor (RS485)	DST111	5,350.00	4,547.50
	SENSOR CABLES			
1	Communication cable between DSC111 and DST111	216548	90.00	76.50
1	3 m cable for communications and power supply	26719	110.00	93.50
1	5 m cable for communications and power supply	26720	110.00	93.50
1	10 m cable for communications and power supply	216546	122.28	103.94
1	25 m cable for communications and power supply	216547	170.00	144.50
1	50 m cable for communications and power supply	DR221741Z50M	460.00	391.00
1	100 m cable for communications and power supply	DR221741Z100M	860.00	731.00
1	150 m cable for communications and power supply	DR221741Z150M	1,300.00	1,105.00
1	Special length cable for communications and power supply	DR221741ZSPEC	Custom	
1	Remote Serial Hardware Interface Kit Includes serial device panel, enclosure and mounting brackets to mount the enclosure on a pole -- (Quote type V separately)	76706000	909.56	773.13
1	FP2000 Sensor 150' Grey #3 Kit Includes 150' Type IIA cable, 1-20 oz. encapsulating epoxy, 1-6 oz. topcoat epoxy #3 concrete, 1 Steel Stick	76420150	4,460.19	3,791.16
1	FP2000 Sensor 300' Grey #3 Kit Includes 300' Type IIA cable, 1-20 oz. encapsulating epoxy, 1-6 oz. topcoat epoxy #3 concrete, 1 Steel Stick	76420300	4,570.44	3,884.87
1	FP2000 Sensor 500' Grey #3 Kit	76420500	4,680.69	3,978.59

	Includes 500' Type IIA cable, 1-20 oz. encapsulating epoxy, 1-6 oz. topcoat epoxy #3 concrete, 1 Steel Stick			
1	FP2000 Sensor 150' Black #9 Kit	76421150	4,460.19	3,791.16
	Includes 150' Type IIA cable, 1-20 oz. encapsulating epoxy, 1-6 oz. topcoat epoxy #9 asphalt, 1 Steel Stick			
1	FP2000 Sensor 300' Black #9 Kit	76421300	4,570.44	3,884.87
	Includes 300' Type IIA cable, 1-20 oz. encapsulating epoxy, 1-6 oz. topcoat epoxy #9 asphalt, 1 Steel Stick			
1	FP2000 Sensor 500' Black #9 Kit	76421500	4,680.69	3,978.59
	Includes 500' Type IIA cable, 1-20 oz. encapsulating epoxy, 1-6 oz. topcoat epoxy #9 asphalt, 1 Steel Stick			
1	Subsurface Temperature Probe w/150' D Kit	76510155	1,380.12	1,173.10
	Includes 150' Type IIA cable, 1-20 oz. encapsulating epoxy			
1	Subsurface Temperature Probe w/300' D Kit	76510310	1,487.22	1,264.14
	Includes 300' Type IIA cable, 1-20 oz. encapsulating epoxy			
1	Subsurface Temperature Probe w/500' D Kit	76510500	1,597.47	1,357.85
	Includes 500' Type IIA cable, 1-20 oz. encapsulating epoxy			
1	Type V Surface Sensor Extension Cable in Linear Feet	42110002	0.93	0.79
	Up to 500 feet shipped via UPS, longer lengths via common carrier		Per Foot	
1	Splice Kit	24051020	61.50	52.28
1	Splice Tool Kit	24051016	418.80	355.98
	Hand presser and swaging tool			
1	Subsurface Moisture Probe -MP 917	76510600	14,399.00	12,239.15
1	Soil Moisture InstallationKit	76707000	263.56	224.03
1	Temperature Data Probe (TDP)	72421400	2,699.29	2,294.40
	72" long, 1" diameter probe which includes 15 thermistors plus one fixed reference resistor. Thermistor spacing is 3" each for first 12" and 6" spacing from 12" to 72".			
1	TDP to RPU interface kit	24051029	177.71	151.05
1	Groundhog G-10WX - 900 MHZ Traffic Analyzer -	70000170	1,909.64	1,623.19
	G-10WX-900 (Volume Count, Classification, Speed,WX)			
	Includes: Electronic Module, Battery Pack, In-Ground Housing			
1	Groundhog G-10CS - 2.45 GHZ Traffic Analyzer -	70000173	1,738.60	1,477.81
	G-10CS-245 (Volume Count, Classification, Speed)			
	Includes: Electronic Module, Battery Pack, In-Ground Housing			
1	Groundhog G-10ETP - 900 MHZ Traffic Analyzer -	70000176	1,973.74	1,677.68
	G-10ETP-900 (Volume Count, Classification, Speed,WX)			
	Includes: Electronic Module, External Pavement & Sub Surface Probe, Battery Pack, In-Ground Housing, Thermistor Probes			
1	Groundhog G-10 ETP - 2.45 MHZ Traffic Analyzer -	70000177	2,021.25	1,718.06
	G-10 ETP-900 (Volume Count, Classification, Speed, WX-3 temperatures available			
	Includes: Electronic Module, Battery Pack, In-Ground Housing, (2) Thermistor Probes			
1	20 oz. Epoxy	06030101	94.26	80.12
1	Lid Removal Tool G2/4/8/10	70000273	152.15	129.33

1	Canister Install Tool	21000150	315.00	267.75
1	Groundhog RPU Radio Kit - 900MHZ	24051850	2,756.25	2,342.81
	Radio base unit with antenna and cabling for use at RPU to communicate with Groundhog(s)	11000130		
	Antenna, Omni directional, 4dBd (915)	28300107		
	Arrester-lightning 915MHz	50501340		
	Cable, LMR195 3', RPSMA-Male to N-Male	50932135		
	Coax Cable 35' low loss extension	7000801		
	RFMS 915	61030002		
	Antenna mounting bracket for tower			
1	Sensit Active/Passive Combination Pavement Sensor	72640150	6,504.75	5,529.04
1	Active and passive combined pavement sensor with 150' direct burial cable			
1	Sensit Installation Kit	76640400	400.00	340.00
SERVER HARDWARE AND SOFTWARE				
1	PC with 17" Flat Panel LCD Monitor	51010200	2,403.87	2,043.29
	Includes Windows XP and Microsoft SQL Engine and Visual Mining Software.			
	Adds graphical map feature to SCAN PC. Includes installation of software and features at the factory.			
1	RWIS Online Navigator Large Agency Yearly Fee	80813012	7,350.00	6,247.50
	RWIS Online Navigator for Large Agency - DOT, Turnpike or Airport. Communication fees not included.			
	(must include RWIS online Terms & Conditions)			
	(must include RWIS online Terms & Conditions)			
1	RWIS Online Navigator Initial Set up Large Agency	80813017	1,050.00	892.50
	Initial software system setup fee and configuration of 1 user			
1	Communication Charges	90300573	900.00	765.00
	(yearly communication charges per site if VAISALA is responsible for communication charges)			
1	SCAN Web Navigator - Large Agency	80000201	15,000.00	12,750.00
	This is a one time fee per server that provided the software and non-redistribution license for a single user (agency) such as DOT, Turnpikes, and other large agency			
1	Upgrade SCAN Web Navigator	80000211	11,250.00	9,562.50
1	Navigator Customization Set-up (Optional)	90300230	3,000.00	2,550.00
	Configure 1 RWIS station group map, all station maps, all defined groups, and up to 50 users (Requirements above this requires custom pricing)			
1	Navigator Data Export Software	80000203	2,750.74	2,338.13
1	Navigator Collection Software	80000204	9,000.00	7,650.00
	Includes SCAN Server NTCIP-ESS software license			
1	Navigator Database/Web Server - Rack Mount	51016235	6,299.98	5,354.98

Used as entry level Multi-function server web/database 1-10 RPU's polled/1-20 concurrent users OR standard web server 1-100 concurrent users. Dell PowerEdge R610, 4GB memory, 1066MHz dual ranked UDIMMs for 1 processor, E-5502 Xeon processor, 1.86 GHz 4M Cache, 4.86 GT/s QPI, TurboHT, 4.86 GT/s QPI, TurboHT; RAID 1; DVD-R, sliding ready rails, redundant power supply

	Monitor not included			
1	Navigator Database Server - Rack Mount Used as standard database server 10-25 RPU's polled. Dell PowerEdge R610, 4GB memory, 1066MHz dual ranked UDIMMs for 1 processor, E-5504 Xeon processor, 2.0GHz 4M cache, 4.86 GT/s, QPI, TurboHT; RAID 5, Sliding ready rails, redundant power supply, DVD-R Monitor not included	51016236	8,051.74	6,843.98
1	Navigator Database/Web Server - Tower Used as entry level Multi-function server web/database, 1-10 RPU's polled/1-20 concurrent users OR standard web server 1-100 concurrent users. Dell PowerEdge T610, single processor, RAID 1 hard drive, 4GB memory, 1066MHz dual ranked UDIMMs: E5504 Xeon processor, 2.0GHz 4M cache, 800MHz Max Mem, redundant power supply, DVD-R Monitor not included	51010210	5,823.61	4,950.07
1	Navigator Database Server - Tower Used as standard database server 10-25 RPU's polled. Dell PowerEdge T610, 4GB memory, 1066MHz dual ranked UDIMMs for 1 processor; E5506 Xeon processor, 2.13GHz 4M cache, 800MHz max memory, PERC 6/I SAS RAID controller, PCI256MB, redundant power supply, DVD-R Monitor not included	51010220	7,053.54	5,995.51
1	Navigator Custom Server Hardware Used as standard database server 10-25 RPU's poled. DELL Monitor not included		Custom	
1	UPS, SU-750-NET	28050421	390.19	331.66
1	Navigator Server Setup and Configuration (SSI Furnished) Labor to load, configure and test server software.	85001001	1,378.13	1,171.41
1	Navigator Server Setup and Configuration (Customer) Labor to load, configure and test server software.	85001002	1,929.38	1,639.97
1	Microsoft Windows 2003 Server License Pack Not required if customer has a site license for Microsoft Windows 2003.	51052003	1,265.12	1,075.35
1	Microsoft SQL Server License Pack (Current Version) Not required if customer has a site license for Windows SQL. This version of SQL is for 5 Client Access Licenses (CAL's). If a customer has more than 5 simultaneous SQL users, a different license may be required by Microsoft.	51056000	1,096.99	932.44
1	17" Flat Screen LCD Color Monitor	54010171	765.14	650.37
1	Digiboard - PCI Serial 8 Port Expansion Board for Server 8 port octopus cable	51020113 51020099	879.71 80.81	747.75 68.69
1	Digiboard - NEO PCI 4 Port Expansion Board for Server 4 port cable	51020109	368.40	313.14

1	Digiboard - PCI Serial 2 Port Expansion Board for Server	51020112	305.54	259.71
	Set of two device to port board cables	5060056	11.03	9.38
1	USR 56K Server Modem	58030256	171.99	146.19
1	3Com Courier V.Everything 56K Server Modem	52010258	452.66	384.76
	9 to 25 pin cable	50600056		
	ESP Controlled Power Interrupter	49050100		
	RJ11 to RJ11 Cable	50933112		
	For use with port servers			
1	Port Server, Digiboard TS-2	51020123	466.77	396.75
	Features 2 @ EIA-232 asynchronous ports			
1	Port server to device cable, 4' RJ45 to DB25 (one per device)	50502462	42.14	35.82
1	Port Server, Digiboard TS-4	51020124	604.01	513.41
	Features 4 @ EIA-232 asynchronous ports			
1	Port server to device cable, 4' RJ45 to DB25 (one per device)	50502462	42.14	35.82

OPTIONAL COMMUNICATION EQUIPMENT

1	Freewave RPU Radio Kit	59030030	2,355.43	2,002.12
	Spread spectrum radio	56030010		
	Cable, 30 ft. coaxial N-male to N-male	50932135		
	Polyphaser, DC pass protector, N-female to N-female	49030213		
	Wall power supply	49030012		
	Cable, 1/4" superflex 3" N-male to N-male cable assembly	42190006		
	Cable, 3ft. modem, DB9P to DB9S	50501358		
	Antenna mounting bracket	61030002		
	Yagi Spread Spectrum Antenna	61020008		
1	Highway/Airport Server Data Radio Kit, VHF 5 Watt	24051896	2,595.27	2,205.98
	Integrated wireless modem, VHF 132-174 Mhz, 1-5 watts	52070030		
	7A power supply	28010001		
	Polyphaser DC pass protector, N-female to N-female	49030213		
	Coaxial cable, 4' SMA-female to N-male	50501368		
	DB9M to DB25F serial adapter	11060012		
	Coaxial cable for antenna, 100', N-male to N-male, 50 Ohm	50932100		
1	Omnidirectional antenna G7-150-4, 167-174 MHz, VHF	61050001	275.63	234.29
1	Omnidirectional antenna G7-150-3, 161-167 MHz, VHF	61050002	275.63	234.29
1	Omnidirectional antenna G7-150-1, 148-154 MHz, VHF	61050003	275.63	234.29
1	Omnidirectional antenna G7-150-2, 154-161 MHz, VHF	61050004	175.76	149.40
1	Highway Server Data Radio Kit, VHF 12-40 Watt	24051878	2,475.63	2,104.29
	Integrated wireless modem, VHF 132-174 Mhz, 1-5 watts	52070030		
	9A power supply	28010009		
	TPL RF amplifier, VHF 12-40 watts	56030040		
	Wiring harness for TPL RF amplifier	50501359		
	Polyphaser DC pass protector, N-female to N-female	49030213		
	Coaxial cable, 4' SMA-female to N-male	50501368		
	Coaxial cable, 1/4" superflex. 3' N-male to N-male, 50 Ohm	42190006		
	DB9M to DB25F serial adapter	11060012		
	Coaxial cable for antenna, 100', N-male to N-male, 50 Ohm	50932100		
1	Omnidirectional antenna G7-150-4, 167-174 MHz, VHF	61050001	275.63	234.29
1	Omnidirectional antenna G7-150-3, 161-167 MHz, VHF	61050002	275.63	234.29
1	Omnidirectional antenna G7-150-1, 148-154 MHz, VHF	61050003	275.63	234.29
1	Omnidirectional antenna G7-150-2, 154-161 MHz, VHF	61050004	175.76	149.40
1	Highway/Airport Server Data Radio Kit, UHF 5 Watt	24051895	1,983.65	1,686.10

	Integrated wireless modem, UHF 450-470, 1-5 watts	52070035		
	7A power supply	28010001		
	Polyphaser DC pass protector, N-female to N-female	49030213		
	Coaxial cable, 4' SMA-female to N-male	50501368		
	Adapter, #4400 Amphenol, UHF to N-male	11010001		
	DB9M to DB25F serial adapter	11060012		
	Coaxial cable for antenna, 100', UHF male to UHF male, RG8U, 50 Ohm	50932000		
1	Omnidirectional antenna G6-450-3, 462-470 MHz, UHF	61049998	170.89	145.26
1	Omnidirectional antenna G6-450-2, 456-464 MHz, UHF	61049999	169.07	143.71
1	Omnidirectional antenna G6-450-1, 450-458 MHz, UHF	61050000	170.09	144.58
1	Highway Server Data Radio Kit, UHF 10-50 Watt	24051873	2,789.90	2,371.42
	Integrated wireless modem, UHF 450-470, 1-5 watts	52070035		
	20A power supply	28010003		
	TPL RF amplifier, UHF 10-50 watts	56030050		
	Wiring harness for TPL RF amplifier	50501359		
	Polyphaser DC pass protector, N-female to N-female	49030213		
	Coaxial cable, 4' SMA-female to N-male	50501368		
	Coaxial cable, 1/4" superflex. 3' N-male to N-male, 50 Ohm	42190006		
	Adapter, #4400 Amphenol, UHF to N-male	11010001		
	DB9M to DB25F serial adapter	11060012		
	Coaxial cable for antenna, 100', UHF male to UHF male, RG8U, 50 Ohm\	50932000		
1	Omnidirectional antenna G6-450-3, 462-470 MHz, UHF	61049998	170.89	145.26
1	Omnidirectional antenna G6-450-2, 456-464 MHz, UHF	61049999	169.07	143.71
1	Omnidirectional antenna G6-450-1, 450-458 MHz, UHF	61050000	170.09	144.58
1	Highway RPU Data Radio Kit, VHF 5 Watt	24051875	2,212.63	1,880.74
	Integrated wireless modem, VHF 132-174 Mhz, 1-5 watts	52070030		
	7A power supply	28010001		
	Polyphaser DC pass protector, N-female to N-female	49030213		
	Coaxial cable, 4' SMA-female to N-male	50501368		
	Straight through cable, 3' DB9S to DB9P	50501358		
	Coaxial cable, 1/4" superflex. 3' N-male to N-male, 50 Ohm	42190006		
	Universal mounting bracket with hardware	15042735		
	Coaxial cable for antenna, 35', N-male to N-male, 50 Ohm	50932135		
	Yagi antenna, 138-174MHz, 5 element	61060002		
	Antenna mounting bracket for tower	61030002		
1	Highway RPU Data Radio Kit, VHF 12-40 Watt	24051876	2,804.32	2,383.67
	Integrated wireless modem, VHF 132-174 Mhz, 1-5 watts	52070030		
	9A power supply	28010009		
	TPL RF amplifier, VHF 12-40 watts	56030040		
	Wiring harness for TPL RF amplifier	50501359		
	Polyphaser DC pass protector, N-female to N-female	49030213		
	Coaxial cable, 4' SMA-female to N-male	50501368		
	Straight through cable, 3' DB9S to DB9P	50501358		
	Coaxial cable, 1/4" superflex. 3' N-male to N-male, 50 Ohm	42190006		
	Universal mounting bracket with hardware	15042735		
	Coaxial cable for antenna, 35', N-male to N-male, 50 Ohm	50932135		
	Yagi antenna, 138-174MHz, 5 element	61060002		
	Antenna mounting bracket for tower			
1	Airport RPU Data Radio Kit, UHF 5 Watt	24051882	1,772.56	1,506.68

	Integrated wireless modem, UHF 450-470 MHz, 1-5 watts	52070035		
	7A power supply	28010001		
	Polyphaser DC pass protector, N-female to N-female	49030213		
	Coaxial cable, 4' SMA-female to N-male	50501368		
	Adapter, #4400 Amphenol, UHF to N-male	11010001		
	Straight through cable, 3' DB9S to DB9P	50501358		
	Coaxial cable for antenna, 12', UHF male to UHF male, RG8U, 50 Ohm	50932012		
	Universal mounting bracket with hardware	15042735		
	Yagi antenna, 445-470MHz, 5 element	61060001		
1	Highway RPU Data Radio Kit, UHF 5 Watt	24051870	2,105.91	1,790.02
	Integrated wireless modem, UHF 450-470 MHz, 1-5 watts	52070035		
	7A power supply	28010001		
	Polyphaser DC pass protector, N-female to N-female	49030213		
	Coaxial cable, 4' SMA-female to N-male	50501368		
	Adapter, #4400 Amphenol, UHF to N-male	11010001		
	Straight through cable, 3' DB9S to DB9P	50501358		
	Universal mounting bracket with hardware	15042735		
	Coaxial cable for antenna, 35', UHF male to UHF male, RG8U, 50 Ohm	50932035		
	Yagi antenna, 445-470MHz, 5 element	61060001		
	Antenna mounting bracket for tower	61030002		
1	Highway RPU Data Radio Kit, UHF 10-50 Watt	24051871	3,090.23	2,626.70
	Integrated wireless modem, UHF 450-470 MHz, 1-5 watts	52070035		
	20A power supply	28010003		
	TPL RF amplifier, UHF 10-50 watts	56030050		
	Wiring harness for TPL RF amplifier	50501359		
	Polyphaser DC pass protector, N-female to N-female	49030213		
	Coaxial cable, 4' SMA-female to N-male	50501368		
	Adapter, #4400 Amphenol, UHF to N-male	11010001		
	Straight through cable, 3' DB9S to DB9P	50501358		
	Coaxial cable, 1/4" superflex. 3' N-male to N-male, 50 Ohm	42190006		
	Universal mounting bracket with hardware	15042735		
	Coaxial cable for antenna, 35', UHF male to UHF male, RG8U, 50 Ohm	50932035		
	Yagi antenna, 445-470MHz, 5 element	61060001		
	Antenna mounting bracket for tower	61030002		
1	CDMA Modem Kit (Verizon Approved)	59030315	2,085.85	1,772.97
	Raven X CDMA Modem	52101915		
	Antenna, Yagi, 824-896 MHz	61010003		
	Cable, 1/2" foam helix LDF ISO 30'	50932135		
	Cable, 1/4" foam helix	42190003		
	Polyphaser, DC pass protector	49030213		
	Antenna mounting bracket for tower	61030002		
	13.5 Volt DC wall plug-in power source	28010006		
	Raven X CDMA Modem	52101915		
	Antenna, Yagi, 824-896 MHz	61010003		
	Cable, 1/2" foam helix LDF ISO 30'	50932135		
	Cable, 1/4" foam helix	42190003		
	Polyphaser, DC pass protector	49030213		
	Antenna mounting bracket for tower	61030002		
	13.5 Volt DC wall plug-in power source	28010006		
1	Multi-Mode Fiber to Ethernet Remote Installation Kit	76706100	3,179.75	2,702.79

(Fiber solution used to remotely deploy Ethernet devices such as cameras. Multi-mode fiber cable sold separately)

	4-Port Ethernet switch w/multi-mode fiber support,	52010522		
	Dual port Ethernet surge and lightning protection	49030220		
	Cable, Cat5 Ethernet cable, 1ft	50500155		
	Enclosure, 20" x 16" x 10, Aluminum	15020018		
	Enclosure mounting bars	60030018		
1	Multi-Mode Fiber Cable	15000412		
1	ST Connector termination fee		155.00	131.75
1	Fiber Cable - per ft -- (up to 13,000 ft)		0.87	0.74
1	Integrated Wireless Modem, UHF 406 to 422	52070040	1,260.00	1,071.00
1	Nextel IR 1200 Modem Kit	24051200	1,543.50	1,311.98
	12 VDC adapter kit	49030035		
	110VAC adapter kit	49030030		
1	GSM Modem Kit (AT&TT)	59030310	2,237.30	1,901.71
	Raven-E Edge, Ethernet	52101910		
	Sim Card	52101920		
	DC Power Cord 10'	50200220		
	3' Ethernet Cable (Red)-Crossover	50500165		
	Antenna, Yagi, Multi-Band, 800-1900-2400MHz, 10dBi	61020010		
	Cable, 1/2" Foam Heliaz LDF ISO 30' N-Male to N-Male	42190002		
	Cable, 1/4" Superflex 3' N-Male to TNC-Male	42190003		
	Polyphaser, DC Pass Protector, N-Female to N-Female	49030213		
		61030002		
1	Satellite Communication Package for LX RPU	52020100	5,500.37	4,675.31
	Requires one year communication contract			
Mobile Weather Sensors				
1	Surface Patrol Kits - RJ14 Connection (delivery			
1	Surface Patrol System	73000200	1,378.13	1,171.41
	Product includes Probe, Dashboard Display, Air Temperature Sensor w/cable, and conexal RJ14 cable between probe/display			
1	Surface Patrol System with Digital Output	73000350	1,598.63	1,358.84
	Product includes Probe, Dashboard Display, Air Temperature Sensor w/cable, conexal RJ 14 cable between probe/display, and digital daughter board			
1	Surface Patrol System with Analog Output	73000650	1,598.63	1,358.84
	Product includes Probe, Dashboard Display, Air Temperature Sensor w/cable, conexal RJ14 cable between probe/display, and analog daughter board			
1	Surface Patrol Spreader w/DB9, Conexal - Standard Interf	73000600	1,378.13	1,171.41
	Product includes Probe, spreader interface, Air Temperature Sensor w/cable, and cable between probe and customer display			
1	Surface Patrol Spreader w/DB9, Conexal - Force America	73000500	1,378.13	1,171.41
	Product includes Probe, spreader interface, Air Temperature Sensor w/cable, and cable between probe customer supplied display			
1	Surface Patrol HD System	73000250	2,310.00	1,963.50
1	Surface Patrol HD System with Digital Output	73000400	2,520.00	2,142.00

	Product includes Probe, HD Sensor, Dashboard Display, Air Temperature Sensor w/cable, conexal RJ14 cable between probe/display, and digital daughter board			
1	Surface Patrol HD Retrofit System Product includes Probe, HD Sensor, Dashboard Display, and conexal RJ14 cable between probe/display	73000550		
1	Surface Patrol HD Spreader w/DB9, Conexal - Standard Ir Product includes Probe, HD Sensor, spreader interface, w/cable, and cable between probe/ customer provided display	73000000		
1	Surface Patrol HD Spreader w/DB9, Conexal - Standard Ir Product includes Probe, HD Sensor, spreader interface, w/cable, and cable between probe/ customer provided display	73000100		
1	Profiler Software & Sensors Product includes: Manual, NS-60, SS-10, Serial Surface Patrol Kit, Profiler software, Cables <i>Requires 2 serial ports on laptop or 3 w/GPS option. GPS is optional and needs to be quoted separately</i>	70004200	2,433.90	2,068.82
1	Profiler Software & Cable Kit Product includes: Manuals, Necessary Cables	70004201	682.50	580.13
1	Profiler Software	70700180	525.00	446.25
1	USB Serial Adaptor	29900160	82.69	70.29
Surface Patrol Parts				
1	Ambient Temperature Sensor and Cable Cable interfaces with Display Unit - w/RJ14	67051829	66.15	56.23
1	Surface Patrol IR Cable Cable interfaces with Display Unit and Probe - w/RJ14	50939210	132.30	112.46
1	Surface Patrol Display Unit Dashboard display - w/RJ14	64010200	441.00	374.85
1	Surface Patrol Digital Display Unit Dashboard display - w/RJ14 & digital daughter board	73000700	513.65	436.60
1	Surface Patrol Analog Display Unit Dashboard display - w/RJ14 & analog daughter board	73000750	651.30	553.61
1	Digital PCB Digital daughter board interfaces with display unit	70109400	220.50	187.43
1	Analog PCB Analog daughter board interfaces with display unit	70109405	220.50	187.43
1	Probe Assembly with Conexal Connector	67050125	760.73	646.62
1	Surface Patrol Display Bracket Optional Bracket for Dashboard mount	15042915	33.08	28.12
1	Spreader Control Interface Interface box only - for spreader controls	57050150	330.75	281.14
1	Spreader Cable DB9, Conexal -Standard Intersface	60939360	220.50	187.43

	Cable to connect probe to spreader control and 3rd party spreader			
1	Spreader Cable Conexal -Force America	60939380	210.00	178.50
	Cable to connect probe to spreader control and 3rd party spreader			
1	Ambient Temperature Assembly			
1	Ambient Cable Assembly - Spreader	50939300	66.15	56.23
1	Ambient Sensor Module - Spreader	50939350	27.56	23.43
1	Surface Patrol Calibration Cable - Spreader	50939370	66.15	56.23
1	Surface Patrol HD Sensor Assembly w/RJ14	61400503	866.25	736.31
1	Surface Patrol HD Display w/RJ14	64010270	498.75	423.94
1	Surface Patrol HD Display Digital Option w/RJ14	73000850	551.95	469.16
	Dashboard display - w/RJ14 & digital daughter board			
1	HD Spreader Control Interface	64010210	350.00	297.50
	Interface box only - for spreader controls			
1	HD Spreader Cable	50939400	148.50	126.23
	connects HD Sensor to interface box			
1	Dew Point Sensor	60000502	100.53	85.45
1	Dew Point Sensor Filter	17500753	8.66	7.36

SERVICE / PREVENTATIVE MAINTENANCE

CONTRACTS & ENGINEERING

1	On Site Equipment Installation	INSTDAY	Custom Per Project	
1	Commissioning / Site Acceptance	SAT	1,500.00	1,275.00
	Commissioning is performed by VAISALA Field Service Engineer on site after installation has been completed. It is the process that brings the installed RWIS equipment into a fully operational condition. The VAISALA Field Engineer will calibrate and terminate the pavement sensor cables. The completion of commissioning signifies the start of warranty period. Duration: X work days on-site and Y travel days. Travel costs except airfare are included; airfare billed at cost.			
1	Service Day at Site	SERVDAY	1,500.00	1,275.00
	Annual Maintenance, Project management or Software work, Preparation of installation plan and statement of work (SOW). Engineer, specialist per Day. Duration: X work days on-site and Y travel days. Includes travel costs except airfare; airfare billed at cost.			
1	Service/Maintenance Work	SERVHOUR	200.00	170.00
	Repair at Factory, Calibration, Field Service Work, etc., Total per hour.			
1	Training Day at Site	TRAINSITE	2,500.00	2,125.00
	Training on-site, at customer's facilities. Adequate training equipment and facilities as specified by Vaisala are furnished by the Buyer. Training fee covers one set of printed course material. Duration: X work days on-site and Y travel days. Includes travel costs except airfare; airfare billed at cost.			
1	Training Day at Factory	TRAINFACT	2,000.00	1,700.00

Training at Vaisala's facilities.

Duration: **X** days

Training fee covers: Set of printed course material, lunch during working days, transportation between hotel and factory for two participants.

Air fare, local hotel accommodation and daily allowance are excluded

1	System User Training, 4 Hour Session, Webinar	90300570	1,000.00	850.00
	Includes RWIS System and Navigator User training			
1	Navigator Admin & Configuration Training-Webinar	90300571	1,000.00	850.00
1	Custom System Engineering Work, Per Hour		200.00	170.00
1	Custom System Configuration Work, Per Hour		200.00	170.00

MANUALS

1	LX Technical Manual	00000005	300.00	255.00
	Includes one printed copy and on copy on CD			
1	Roadway System Installation Manual	00000002	30.00	25.50
1	Sensor/Sub Probe Installation/Splice Manual	00000003	30.00	25.50